



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

especially of the Scotch scorpion referred to that genus by Mr. Peach. An additional reason to those given above for removing *Proscorpius* from the Carboniferous *Eoscorpoidæ*, and for referring this genus to the *Apoxypodes*, fam. *Palæophonoidæ*, may be found in its being, geologically speaking, almost contemporary with the *Palæophoni*, belonging, like these, to the Upper Silurian formation. As the *Palæophoni*, and all other more recent scorpions, are undoubted land-animals and air-breathers, and, as no traces of branchiæ have been shown to exist in *Proscorpius*, there is, I believe, no serious reason for considering that this scorpion is an aquatic animal, or that "we have here a link between the true aquatic forms, the *Eurypterus* and *Pterygotus*, and the true air-breathing scorpions of subsequent periods," as Mr. Whitfield supposes. Very strange, also, would it be, if the connecting link between the gigantic *Eurypterids* and the scorpions should be formed of such a little creature as *Proscorpius osbornei*, one of the smallest scorpions hitherto known—especially as this diminutive scorpion lived contemporaneously with the *Eurypterids*.—*T. Thorell, Sori, Italy.*

AN EXTINCT DOG.—The remains of an extinct type of dog, differing widely from any of the ordinary wild or domestic dogs, have been recently described by Mr. J. A. Allen in the memoirs of the museum of zoölogy at Harvard college. The bones were found in Ely cave, Lee county, Virginia, one of the oldest of a group of caverns in limestone of Cambro-Silurian age described by Professor Shaler, of the geological survey of Kentucky. In general form the new dog was a short-limbed, heavy-bodied animal, resembling in its proportions a badger rather than a dog. The skull has not been found. Mr. Allen refers the remains to a new genus, under the name of *Pachycyon robustus*.

MINERALOGY AND PETROGRAPHY.¹

TIN.—In the "Mineral Resources of the United States, calendar years 1883 and 1884,"² W. P. Blake describes the occurrence of "tin-stone," two miles from Harney city, in the Black hills, Dakota. This locality was discovered in June, 1883. During the following year a company was formed to mine the ore, and enough progress was made to show that the find was commercially of much importance. The ore is found in two distinct forms, viz: massive, in bunches with spodumene, feldspar and quartz; and granular, disseminated in greisen.³ The principal vein, known as the Etta, is described as having a rudely concentric structure. The outer portion consists of a mixture of dark and light colored

¹ Edited by W. S. BAYLEY, Johns Hopkins University, Baltimore, Md.

² Washington, Government Printing Office, 1885.

³ A rock with the microscopic characteristics of ordinary greisen, but containing albite instead of quartz.

micas, within which is a second belt of quartz and spodumene. Associated with the latter is the cassiterite in bunches, some weighing as much as fifty or sixty pounds. Inside of this second belt is a third made up of greisen, in which occurs the granular variety of the ore. The central portion within the third belt is principally a coarse mixture of quartz and feldspar. The spodumene crystals in the second belt are of enormous size. One of the largest, measuring thirty-six feet in length, is without a single flaw. The area of the tin-producing region is being constantly extended by new explorations, so that its limits cannot yet be definitely fixed. In addition to its occurrence in the rocks the mineral is also known to exist as "stream tin" in the water courses leading down from the hills into the surrounding plains.

PETROGRAPHICAL NEWS.—*Peridotites*.—The rocks of this class belonging to the "Cortlandt series" on the Hudson river near Peekskill, N. Y., are divided by Dr. G. H. Williams¹ into hornblende peridotites (Hudsonites of Cohen), and augite peridotites (picrites of Tschermak). The former are characterized by the structure so well seen in the case of "Bastite" or "Schillerspath," and called by Pumpelly and Irving, "luster-mottling." In the present instance this structure (for which the author proposes the word *poicilitic*) is due to the inclusion of olivine, or its alteration product serpentine, in hornblende. This hornblende is without crystal form and is filled with sharp little transparent crystals and opaque black needles. These latter occur also in the olivine and are identical with those which Judd² considers as of secondary origin. This view the author of the present paper combats. He thinks they are substances extruded during crystallization as incapable of forming a part of their host, like the silicates in metamorphosed limestones. The hornblende peridotites pass, by the assumption of diallage, into the augite variety. Occasionally these become schistose as the result of the action of great pressure. Colorless augite with diallage-parting, hypersthene, brown hornblende and well defined crystals of olivine are the most important constituents of this rock.—*Variolitic granite*.—The first notice of variolitic granite from Craftsbury, Vermont, appeared in Hitchcock's report on the geology of Vermont.³ The author there described it as a fine-grained, white and highly feldspathic granite, with considerable black mica. Scattered through this base occur numerous spheroidal nodules of black mica, more or less flattened. This peculiar variety is only locally developed, the granite between Stanstead and Craftsbury, exhibiting no unusual appearance. It occurs most abundantly just south of the latter town. Recently it has been subjected to microscopical examina-

¹ American Jour. Science, v. XXXI, Jan., 1886, p. 26.

² Qt. Jour. Geol. Soc., v. XLI, Aug., 1885, p. 354. AMERICAN NATURALIST, Dec., 1885.

³ Vol. II, p. 564, 1861.

tion by Kroustschoff.¹ The body of the rock is found to consist of orthoclase, completely filled with acicular colorless mica; plagioclase with its twinning lamellæ crumpled and broken; quartz, with liquid inclusions containing double bubbles, and occasionally flattened disks or rounded prisms of a light green, highly refractive mineral; calcite in small rhombohedrons; yellow-brown biotite intimately associated throughout with muscovite and calcite; and bipyramidal prismatic crystals of a colorless mineral, with an extinction of $9-10^\circ$ against the long axis. The varioles are composed of a central kernel of about the same composition as the rock. Surrounding this is a zone sometimes of calcite, sometimes of quartz, in which the mica occurs. Towards its inner side the mica is arranged in concentric layers, with considerable calcite or quartz between. The central portion contains only calcite and mica. Toward the outer side the calcite diminishes in quantity and the granitic materials take its place. The exterior portion of the variole is composed almost entirely of feldspar and quartz, in which the biotite is concentrically arranged, while the calcite occurs only in isolated grains and rhombohedra. The calcite is regarded as an original constituent, since it is found included in the other minerals, and the varioles are supposed to be concretions. — Porphyritic hyperite, a rock of granitic structure, composed of plagioclase, hypersthene and diallage, with hornblende, apatite, titanite iron and a little biotite as accessory constituents, is found at San Diego, Cal. Kroustschoff describes² the plagioclase as occurring both in the ground-mass and also in porphyritic crystals. The latter are developed most prominently in the plane of the brachypinacoid. Analysis shows them to have the composition $Ab_5 An_1$. — Herman and Rutley³ have been studying the devitrification products of glass, heated to a high temperature and allowed to cool suddenly. They find that "in solids free from flaws the devitrification appears to consist in the development of divergent groups of crystals, the divergence being usually limited by a net-work of minute joints, which give rise to small polygonal prisms. The crystalline groups in their respective prisms are banded by arcs of circles." The prismatic structure is approximately normal to the cooling surfaces and the divergent sheaves of the devitrification crystals advance from this surface inward by successive growths within the prism. If the substance however be not homogeneous, crystallization will take place around independent centres irregularly distributed, without reference to the cooling surfaces. In the absence of jointing the whole mass may become spherulitic. These spherulites in a few instances occur within sharply defined circular or approximately circular boundaries, and are

¹ Bulletin de la Société Minéralogique de France, VIII, p. 132.

² Bulletin de la Société Minéralogique.

³ Proceedings of the Royal Society. v. xxxix. No. 239, p. 87.

made up of little globulites, giving rise to a structure very like that of many of the obsidians from California and other parts of the West.—The natural glasses in the neighborhood of the nepheline basalt of Rossberg, near Darmstadt, are thought by Kroustschoff¹ to owe their origin to the solution in the basalt of foreign quartziferous rocks.

MINERALOGICAL NEWS.—The asterism of Canadian phlogopite was noticed by G. Rose,² as early as 1862. He attributed it to the intergrowth of foreign crystals, but did not suggest what might be their nature. Lacroix³ treated some of the Templeton mineral with hydrochloric acid and examined the residue. It was found to consist of little hemimorphic crystals of rutile elongated in the direction of the vertical axis.—In his examination of basaltic glass from Rossberg, Kroustschoff⁴ discovered a pyroxene of a slightly different type from any heretofore described. The new type is transparent and of a very light green color. The crystals are prismatically developed, and show the forms $\infty P \overline{\infty}$, $\infty P \infty$, ∞P and $O P$. Very frequently several individuals are united by their clino-pinacoids, sometimes by their prismatic faces. An analysis of the isolated crystals gave:

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	CaO	MgO	Na ₂ O	K ₂ O
49.18	2.15	4.96	9.04	20.30	13.07	1.89	0.30

—Harringtonite from Ireland has been examined microscopically.⁵ In polarized light it is resolved into an isotropic mass, in which crystals belonging to two distinct species of minerals can be detected. One occurs in little fibrous needles, with longitudinal extinction and negative refraction; the other is in little fragments with broken outlines. The former have the optical properties of mesotype, but are negative. The latter are probably mesotype. Since zeolites are known to have been produced by the action of warm waters, Lacroix thinks that Harringtonite might be looked upon as a gelatinous mass, which has caught up little fragments of the minerals that were floating about in the water in which it was formed. At any rate it can no longer be considered a distinct mineral.

NEW BOOKS.—The second edition of Rosenbusch's "Mikroskopische Physiographie der petrographisch wichtigen Mineralien,"⁶ has recently appeared. This standard work is so very well known that the mere mention of the fact of its revision is sufficient for the purposes of these notes. The advances in the methods of microscopical petrography, the improvements in ap-

¹ Bulletin de la Société Minéralogique de France. VIII, p. 62.

² Monatsb. der Berliner Akad. der Wissens., 1862, p. 614; and 1869, p. 344.

³ Bulletin de la Société Minéralogique de France, VIII, p. 99.

⁴ Ib., VIII, p. 85.

⁵ Lacroix, ib., VIII, p. 96.

⁶ E. Schweizerbart'sche Verlagshandlung (E. Koch). Stuttgart, 1885.

paratus and the very large increase in the amount of literature on the subject within the last twelve years made a second edition of this indispensable book almost imperative. The new edition contains, in addition to a large amount of new matter in the general and special parts, a Newton's scale of prismatic colors (to which reference is made in describing the polarization colors of the different minerals), a practically complete table of petrographical literature and twenty-six photographic plates of mineral and rock sections.—Kalkowsky's "Elemente der Lithologie"¹ is a little treatise of three hundred and sixteen pages, in which the study of rocks is treated as a branch of general geology and not as an appendix to mineralogy. It is intended primarily as an introduction to inorganic geology. In the general part considerable attention is given to the structure, origin and metamorphism of rock masses. In the special part a classification of rocks is attempted, based on the origin of the material of which they are composed. Those whose material was obtained from below are classed as anogenous, those which obtained it from above are called katogenous. Among the latter class belong the sedimentary rocks and the crystalline schists, among which the author places the gabbros and peridotites. Despite the somewhat peculiar views expressed on certain subjects, the book will prove a valuable addition to the library of the lithologist, and a great aid to the student who wishes to study rocks from a geological standpoint.

BOTANY.²

THE ADVENTITIOUS INFLORESCENCE OF *CUSCUTA GLOMERATA* KNOWN TO THE GERMANS.—At the Philadelphia meeting of the American Association for the Advancement of Science, the writer presented a short paper, calling attention to the adventitious inflorescence of *Cuscuta glomerata*. The fact was supposed to be new to science, as it certainly was to the writer, and, moreover, appeared to be to the botanists of the meeting. Additional facts were presented to the Ann Arbor meeting of the Association, and in the discussion the originality of the discovery was not questioned and apparently not doubted by any one.

Imagine my chagrin a few days ago (Dec. 30, 1885), when in running over the text of Dodel-Port's Anatomisch-physiologischen Atlas der Botanik, I found the whole matter fully and accurately described. This atlas was published from 1878 to 1883, in Esslingen. The study of *Cuscuta glomerata* was made in the Botanic Gardens of Zurich, where for ten years or more it has become acclimatized.

On page 4 of part xxx, of the text to the atlas, Dr. Dodel-Port, after describing the normal branching, remarks in substance as

¹ Carl Winter, Heidelberg, 1886.

² Edited by Professor CHARLES E. BESSEY, Lincoln, Nebraska.